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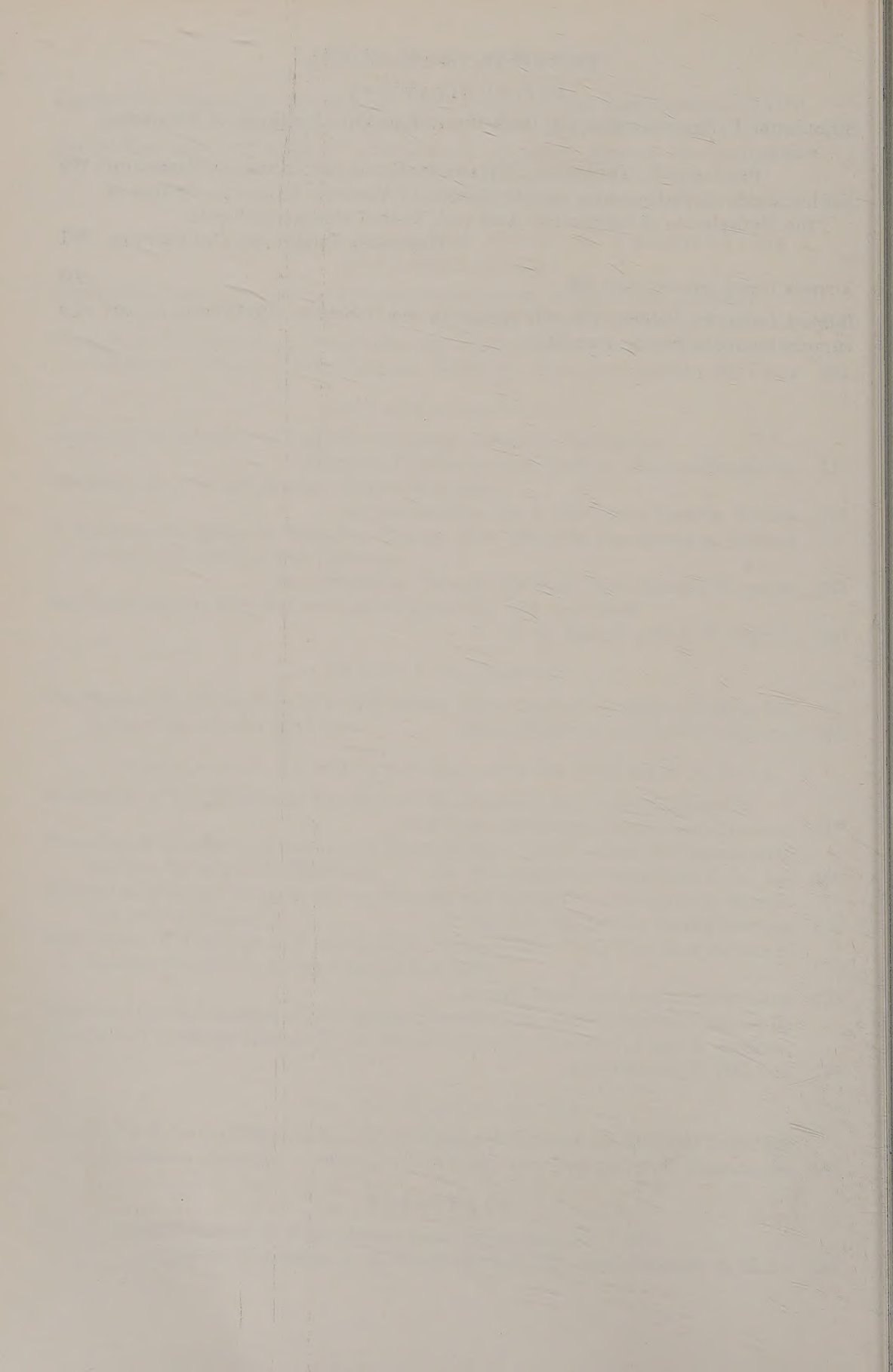
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Second Edition

BACTERIAL METABOLISM

By H. W. DOELLE

*Department of Microbiology
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St. Lucia, Brisbane, Australia*

Here is a new edition of a book that has become well known for the way it brings together bacterial systematics and microbial chemistry (with particular attention to catabolic events). Now completely updated, it provides a complete survey of the metabolic activities of the principal bacterial taxa. Moreover, it covers all presently known pathways and electron transport schemes and evaluates their importance in bacterial classification.

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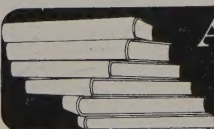
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Photoprocesses, Photoreceptors, and Evolution

By **JEROME J. WOLKEN**

*Biophysical Research Laboratory
Carnegie-Mellon University
Pittsburgh, Pennsylvania*

October 1975, 336 pp., \$19.50/£10.15 ISBN: 0-12-762050-8

This book emphasizes the role of solar radiation as a force in the evolution of life and as a major source of energy for the maintenance of all life on earth. It examines the photoprocesses that occur in plants and animals — such as phototropism, photosynthesis, vision, photoperiodic behavior, time clocks, and memory, as well as many other photo-phenomena. The author traces the steps whereby specific molecules, particularly pigments, once synthesized and incorporated into the membranes of cells, become functional as energy receptors and transducers. He traces the various kinds of photoreceptor structures identified with these phenomena (i.e., the chloroplast, retinal rods and cones, the pineal organ, etc.) along phylogenetic lines in search for universals — that is, how these photoreceptor molecules within their receptor membranes fit into a generalized scheme at the molecular level for all photoreceptor processes.

The book is profusely illustrated with diagrams of models, photographs, and numerous electron micrographs. It will be of considerable value to students interested in photoprocesses in nature, particularly solar energy. Chemists, physicists, and engineers as well as biologists concerned with solar energy and living processes will also find it of interest.

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